

Condition Monitoring

Academic Staff

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With reliability and availability becoming increasingly crucial to railway operators, the use of computer based condition monitoring techniques are being applied to points machines, level crossing equipment and electric and pneumatic train door operator systems. Various techniques for recognising incipient failures are used, including neural network learning schemes.

Current Projects:

- EC – **Innotrack** (<http://www.innotrack.org/>) SP3 (point condition monitoring)
- EPSRC – Ultrasonic testing of rails (with Bristol and Warwick)
- EPSRC (RRUK) – Condition monitoring of vehicle/track (with Loughborough and Southampton)
- Network Rail – Intelligent infrastructure
- Network Rail – TI21 track circuit monitoring
- EC – Non-destructive testing of wheel-sets and axles (SafeRail)
- Siemens – Axle counter analysis
- PhD Student – DC power system monitoring
- PhD Student - Hybrid qualitative/quantitative monitoring algorithms
- PhD Student – Fault detection and diagnosis of pneumatic railway assets

